

Claims

1. Reflectron (109) for use in a mass spectrometer comprising a plurality of reflectron
5 electrodes (123a-123n) connectable to one or more high voltage power supplies (127)
characterised in that it is provided with means for changing the electrical potentials of at
least some of said reflectron electrodes (123a-123n) in order to change the shape of the
electrical field inside said reflectron (109).
2. Reflectron in accordance with claim 1 characterised in that it is provided with at least two
10 sets of field resistances (131a-131n, 137a-137n) which can be connected one set at a time,
or in parallel, or in series, between the reflectron electrodes (123a-123n).
3. Reflectron in accordance with claim 2 characterised in that one of said sets of field
resistances comprises field resistances (131a-131n) arranged to produce a linear electrical
field inside said reflectron (109).
- 15 4. Reflectron in accordance with any of claims 2-3 characterised in that one of said sets of
field resistances comprises field resistances (137a-137n) arranged to produce an
essentially quadratic electrical field inside said reflectron (109).
5. Reflectron in accordance with any of claims 2-4 characterised in that at least one of said
sets of different resistances comprises fewer resistances than there are reflectron
20 electrodes.
6. Reflectron in accordance with any of the previous claims characterised in that at least one
set of field resistances (131a-131n; 137a-137n) is mounted on a movable rod (133; 139),
wherein said rod (133; 139) is movable between a first position where said set of field
resistances (131a-131n; 137a-137n) are in electrical contact with said reflectron electrodes
25 (123a-123n) and a second position where said set of field resistances (131a-131n; 137a-
137n) is not in contact with said reflectron electrodes (123a-123n).